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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,069	03/04/2002	Catherine Mary Dolbear	CM00740P	9255

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EXAMINER	
RAO, ANAND SHASHIKANT	

ART UNIT	PAPER NUMBER
2621	

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/070,069	DOLBEAR ET AL.	
	Examiner	Art Unit	
	Andy S. Rao	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3 and 5-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-7 and 9-11* is/are rejected.

7)☒ Claim(s) *8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments as contained in the Appeal Brief filed on 2/1/06, with respect to the rejection(s) of claim(s) 1-3, 5-7, and 9-11 under 35 U.S.C. 102(b) as being anticipated by Wong have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Hamanaka (US Patent: 6,603,883)

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-3, 5-7, and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong in view of Hamanaka.

Wong discloses a method of enhancing a video bit stream using temporal scalability, wherein the peak signal-to-noise ratios of bidirectionally predicted pictures determined with reference to the peak signal-to-noise ratios of other pictures (Wong: column 6, lines 10-60), as in claim 1. However, Wong fails to explicitly disclose the use of base layer and enhancement picture information for determining the peak signal-to-noise ratios, as in the claim. Hamanaka discloses that in scalability it is known to use a base layer and enhancement layer signal arrangement (Hamanaka: column 7, lines 5-15) in accordance with temporal scalability

(Hamanaka: column 8, lines 66-67; column 9, lines 1-36) and spatial scalability (Hamanaka: column 7, lines 35-45) and signal to noise considerations (Hamanaka: column 2, lines 40-67) for MPEG-2 compressed signals (Hamanaka: column 1,lines 20-45) in order to satisfy the various resolution requirements of receiving equipment (Hamanaka: column 4, lines 25-55). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art incorporate the base layer/enhancement layer configuration of Hamanaka into the Wong method in order to have the Wong teaching satisfy various resolution requirements of the receiving equipment. The Wong method, now incorporating the Hamanaka base layer/enhancement layer signal configuration, has all of the features of claim 1.

Regarding claim 2, the Wong method, now incorporating the Hamanaka base layer/enhancement layer signal configuration, has wherein the number of bits allocated to encode a bidirectionally predicted picture of an enhancement is determined with reference to the number of bits used to encode a picture of another layer (Wong: column 7, lines 1-39), as in claim 2.

Wong discloses a method of enhancing a video bit stream using temporal scalability, wherein temporal positions of predicted picture determined to be spaced evenly with reference to temporal positions of other pictures (Wong: column 6, lines 1-26), as in claim 3. However, Wong fails to explicitly disclose the use of base layer and enhancement picture information for determining the temporal positions, as in the claim. Hamanaka discloses that in scalability it is known to use a base layer and enhancement layer signal arrangement (Hamanaka: column 7, lines 5-15) to determine temporal positions in accordance with temporal scalability (Hamanaka: column 8, lines 66-67; column 9, lines 1-36) for MPEG-2 compressed signals (Hamanaka: column 1,lines 20-45) in order to satisfy the various resolution requirements of receiving

equipment (Hamanaka: column 4, lines 25-55). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art incorporate the base layer/enhancement layer configuration of Hamanaka into the Wong method in order to have the Wong teaching satisfy various resolution requirements of the receiving equipment. The Wong method, now incorporating the Hamanaka base layer/enhancement layer signal configuration, has all of the features of claim 3.

Regarding claim 5, the Wong method, now incorporating the Hamanaka base layer/enhancement layer signal configuration, has wherein the peak signal-to-noise ratios are made similar (Wong: column 6, lines 50-67; column 7, lines 1-20), as in the claim.

Regarding claim 6, the Wong method, now incorporating the Hamanaka base layer/enhancement layer signal configuration, has that the other layer is a wherein other layer is a base layer (Hamanaka: column 7, lines 5-30)), as in the claim.

Regarding claim 7, the Wong method, now incorporating the Hamanaka base layer/enhancement layer signal configuration, has wherein characteristics of more than one picture (Wong: column 6, lines 15-25: noise mapping in I and P pictures) in another layer are considered (Hamanaka: column 7, lines 5-30), as in the claim.

Regarding claim 9, the Wong method, now incorporating the Hamanaka base layer/enhancement layer signal configuration, discloses wherein an average number of bits (Wong: column 4, lines 20-25) used to define a predicted picture (Wong: column 6, lines 15-30) and an average number of bits used to define another picture are used to define a weighting value (Wong: column 6, lines 50-67; column 7, lines 1-38), as in the claim.

Regarding claims 10-11, the Wong method, now incorporating the Hamanaka base layer/enhancement layer signal configuration, has an apparatus for implementation of the method (Wong: figure 3a) as a signal for transmission via a mobile communication system (Wong: column 1, lines 20-25), as in the claim.

Allowable Subject Matter

4. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim 1.

Dependent claim 8 recites implementing the method of claim 1 with "...a first enhancement layer uses SNR scalability to produce enhanced pictures; and a second enhancement layer uses temporal scalability to produce enhanced pictures, based on temporal positions of pictures in the first lower enhancement layer..." is not obvious nor anticipated over the art of record. Accordingly, rejected claims 1-3, 5-7, and 9-11 are canceled, and claim 8 is rewritten as indicated above, the application would be placed in a condition for allowance.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andy S. Rao
Primary Examiner
Art Unit 2621

ANDY RAO
PRIMARY EXAMINER

asr
April 14, 2006